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Docket No. 2001-021-TAP

## ABSTRACT OF THE DISCLOSURE

## APPARATUS AND METHOD OF MAKING A REDUCED SENSITIVITY SPIN VALVE SENSOR APPARATUS IN WHICH A FLUX INJECTION EFFICIENCY IS REDUCED

Apparatus and methods for reducing the sensitivity of spin valve sensor read heads for magnetic tape applications are provided. The apparatus and methods compromise the large output gain derived from using state of the art spin valve sensors in order to reduce the flux capture and thus, the signal distortion in the spin valve sensor. In order to provide a reduced sensitivity spin valve sensor, one or more of the basic sensitivity of the spin valve, the flux carrying capability of the free layer, and the flux injection efficiency of the spin valve head structure are modified to reduce the flux capture by the sensing layer.